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(54) Title: COLORIMETRIC SUBSTRATES, COLORIMETRIC SENSORS, AND METHODS OF USE

(57) Abstract: Described herein is a substrate comprising at least one colorimetric component attached to a peptide, as well as methods for detecting a modification of said substrate. Also described are methods of detecting the presence or absence of a protein, for example, a protein produced by a microorganism, by contacting a substrate with a sample. If the sample contains the protein of interest, the substrate is modified and a visible color change results, indicating the presence or absence of the protein in the sample. The present invention also features biosensors and kits for detecting the presence or absence of microorganisms and/or proteins in a sample.